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Dated: April 1, 2004

Signature:

(Sharon M. Sintich)

Docket No.: 29915/6280N3
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Mark E. Gurney, et al.

Application No.: 10/652,927

Group Art Unit: 1645

Filed: August 29, 2003

Examiner: To be assigned

For: ALZHEIMER'S DISEASE SECRETASE, APP
SUBSTRATES THEREFOR, AND USES
THEREFOR

INFORMATION DISCLOSURE STATEMENT (IDS)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

I. Preliminary Remarks

Submitted herewith is a PTO-Form 1449 listing documents A1-A44, B1-B23 and C1-C22. Copies of the listed documents are not enclosed because they have already been submitted in parent application serial no. 09/416,901 filed October 13, 1999, from which priority is claimed under 35 U.S.C. § 120, and thus pursuant to 37 C.F.R. §1.98(d), copies of the documents are not submitted herewith.

II. Related Applications

Submitted herewith, as Appendix A, is list of pending U.S. patent applications that are related to the above-identified application. The related applications claim priority to U.S. provisional applications 60/101,594 and 60/155,493, and U.S. application 09/404,133 (abandoned). One or more of the related applications may contain claims that are similar in scope or content to claims of the present application. Copies of these applications are not enclosed, but are pending in the U.S. Patent Office and should be available to the Examiner.

During the course of prosecution of these applications, different examiners have raised a variety of rejections under 35 U.S.C. §102, §103, §112, first and second paragraphs, and double patenting. Upon request, the Applicants will provide the Examiner with copies of office actions and/or responses filed for the related applications. The Examiner is invited to contact the undersigned if further explanation of the patent family is necessary.

III. Prosecution Strategy

A multi-application filing strategy was initiated to expedite prosecution of the related Asp2 patent applications listed in Appendix A. Petitions to make special require restriction to a single invention. It was predicted that the originally filed claims in 09/416,901 would be restricted into at least 5 claim groups (human Asp2 polynucleotides, human Asp2 polypeptides, methods of screening, murine Asp2 polynucleotide and polypeptide sequences, and methods of using antisense oligonucleotides). Therefore, 10 divisional applications were filed in April, 2000 wherein these 5 claim groups were each presented in two divisional applications. Petitions to make special were filed in five of the divisional applications (one for each claim set). Because of antidotal evidence that petitions to make special will sometimes actually slow prosecution, five identical applications were filed without petitions.

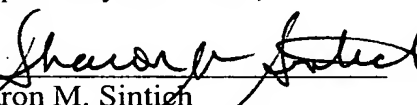
The American Inventor's Protection Act of November 29, 2000 created new provisional rights in the United States based on a published application. Therefore, five additional divisional applications were filed in February, 2001 for the purpose of publication in the United States. Since the speed at which the U.S. PTO would publish these applications was uncertain, three PCT applications were filed with the International Bureau with a request for expedited publication in May, 2001. The present application is a national phase application of one of these PCT applications. These steps were taken to have an application publish and be effective in the U.S. for provisional rights as soon as possible.

IV. Conclusion

This Information Disclosure Statement is submitted before the receipt of an Office Action on the merits of the above-identified application and consequently should be considered by the Patent Office without payment of a fee. See 37 C.F.R. §1.97(b). However, please charge any necessary fees due in connection with this Information Disclosure Statement to Deposit Account No. 13-2855. A copy of this paper is enclosed herewith.

Dated: April 1, 2004

Respectfully submitted,

By 
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APPENDIX A
RELATED PENDING U.S. PATENT APPLICATIONS

<u>Serial Number</u>	<u>Filing Date</u>	<u>Examiner</u>	<u>Relationship</u>	<u>Elected Subject Matter</u>
09/416,901 (Issued as 6,699,671)	10/13/99	Turner	CIP of 09/404,133	Asp2 polypeptide fragments of SEQ ID NO: 6 (aa. 93-266)
09/548,373	4/12/00	Turner	Divisional of 09/416,901	Asp2 polypeptides - full length and fragments of SEQ ID NO: 6
09/548,368	4/12/00	Turner	Divisional of 09/416,901	Asp2 polypeptides - fragments of SEQ ID NO: 4
09/548,370	4/12/00	Turner	Divisional of 09/416,901	Asp2 polynucleotides encoding full length and fragments of SEQ ID NO: 4
09/548,365	4/12/00	Turner	Divisional of 09/416,901	Asp2 polynucleotides encoding fragments of SEQ ID NO: 4 (aa. 93-291)
09/548,376 (Issued as 6,706,485)	4/12/00	Chernyshev	Divisional of 09/416,901	Methods of screening for modulators of Asp2 activity using polypeptides of SEQ ID NO: 6
09/548,369 (abandoned)	4/12/00	Turner	Divisional of 09/416,901	Methods of screening for modulators of Asp2 activity using polypeptides of SEQ ID NO: 4
09/548,366	4/12/00	Turner	Divisional of 09/416,901	Full length Asp2 polynucleotides encoding SEQ ID NO: 4
09/794,743	2/27/01	Slobodyansky	Divisional of 09/416,901	Asp2 polypeptide fragments of SEQ ID NO: 4
09/795,847	2/28/01	Chernyshev	Divisional of 09/416,901	Asp2 polynucleotides encoding fragments of SEQ ID NO: 4

<u>Serial Number</u>	<u>Filing Date</u>	<u>Examiner</u>	<u>Relationship</u>	<u>Elected Subject Matter</u>
09/794,927	2/27/01	Chernyshev	Divisional of 09/416,901	Methods of screening for modulators of Asp2 activity using SEQ ID NOS: 3 and 4
09/794,925	2/27/01	Chernyshev	Divisional of 09/416,901	Asp2 full length polypeptide of SEQ ID NO: 4
09/794,748	2/27/01	McGerry	Divisional of 09/416,901	Methods of using Asp2 Antisense Oligonucleotides
09/806,194	3/23/01	Nicholas	National phase filing of PCT/US00/20881	All Asp1 and Asp2 claims
10/652,830	8/29/03	TBD	Continuation of 09/416,901	
10/652,045	8/29/03	TBD	Continuation of 09/416,901	

Form PTO-1449 (Modified)

U.S. Department of Commerce
Patent and Trademark Office

Attorney Docket No.

29915/6280N3

Serial No.

10/652,927

Applicant

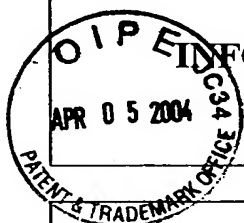
Gurney et al.

Filing Date

August 29, 2003

Group

1645



INFORMATION DISCLOSURE STATEMENT

U.S. PATENT DOCUMENTS

*Examiner Initials		Document Number	Issue Date	Name	Class	Subclass	Filing Date If Appropriate
	A1	5,424,205	6/13/95	Dovey et al.	435	226	
	A2	5,593,846	1/14/97	Schenk et al.	435	7.9	
	A3	5,733,768	3/31/98	Dixon et al.	435	226	
	A4	5,744,346	4/28/98	Chrysler et al.	435	226	
	A5	5,750,349	5/12/98	Suzuki et al.	435	7.1	
	A6	5,766,846	6/16/98	Schlossmacher et al.	435	6	
	A7	5,837,672	11/17/98	Schenk et al.	514	2	
	A8	5,849,560	12/15/98	Abraham	435	219	
	A9	5,942,400	8/24/99	Anderson et al.	435	7.1	
	A10	6,025,180	2/15/00	Powell et al.	435	219	
	A11	5,455,169	10/3/95	Mullan	435	240.2	
	A12	5,795,963	8/18/98	Mullan	435	350	
	A13	5,877,015	3/2/99	Hardy et al.	435	325	
	A14	6,211,428	4/3/01	Singh et al.	800	13	
	A15	6,221,645	4/24/01	Chrysler et al.	435	226	
	A16	6,245,884	6/12/01	Hook	530	300	
	A17	6,245,964	6/12/01	McLonogue et al.	800	12	
	A18	60/141,363	N/A	Lin et al.			6/28/99
	A19	60/168,060	N/A	Lin et al.			11/30/99
	A20	60/178,368	N/A	Lin et al.			1/27/00
	A21	60/210,292	N/A	Hong et al.			6/8/00
	A22	09/277,229	N/A	Citron et al.			3/26/99
	A23	6,313,268	11/6/01	Hook	530	350	
	A24	60/177,836	N/A	Lin et al.			1/25/00
	A25	60/119,571	N/A	Basi et al.			2/10/99
	A26	60/139,172	N/A	Anderson et al.			6/15/00
	A27	60/114,408	N/A	Basi et al.			12/13/98
	A28	09/404,578	N/A	Chrysler et al.			9/23/99
	A29	09/054,334	N/A	Anderson et al.			4/2/98
	A30	09/730,329	N/A	Anderson et al.			12/4/00
	A31	09/471,669	N/A	Anderson et al.			12/24/99
	A32	09/501,708	N/A	Anderson et al.			12/10/00
	A33	09/723,722	N/A	Anderson et al.			11/28/00
	A34	09/724,566	N/A	Anderson et al.			11/28/00
	A35	09/723,739	N/A	Anderson et al.			11/28/00
	A36	09/724,571	N/A	Anderson et al.			11/28/00
	A37	09/724,568	N/A	Anderson et al.			11/28/00
	A38	09/724,569	N/A	Anderson et al.			11/28/00
	A39	6,319,489	11/20/01	Powell et al.	435	69.1	

EXAMINER

DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney Docket No. 29915/6280N3	Serial No. 10/652,927
INFORMATION DISCLOSURE STATEMENT		Applicant Gurney et al.	
		Filing Date August 29, 2003	Group 1645

U.S. PATENT DOCUMENTS							
*Examiner Initials		Document Number	Issue Date	Name	Class	Subclass	Filing Date If Appropriate
	A40	6,162,630	12/19/00	Powell et al.	435	219	
	A41	6,319,689	11/20/01	Powell et al.	435	69.1	
	A42	6,358,725	03/19/02	Christie et al.	435	212	
	A43	6,361,975	03/26/02	Christie et al.	435	69.1	
	A44	6,545,127	04/08/03	Tang et al.	530	350	

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*Examiner Initials		Document Number	Publication Date	Country	Class	Subclass	Translation	
							Yes	No
	B1	WO 96/31122	10/10/96	PCT				
	B2	WO 96/40885	12/19/96	PCT				
	B3	WO 98/13488	4/2/98	PCT				
	B4	WO 98/21589	5/22/98	PCT				
	B5	EP 0848 062 A2	6/17/98	EPO				
	B6	WO 98/26059	6/18/98	PCT				
	B7	EP 0855 444 A2	7/29/98	EPO				
	B8	WO 99/34004	8/7/99	PCT				
	B9	WO 99/31236	6/24/99	PCT				
	B10	WO 99/46281	9/16/99	PCT				
	B11	WO 99/64587	12/16/99	PCT				
	B12	WO 00/23576	4/27/00	PCT				
	B13	WO 00/47618	08/17/00	PCT				
	B14	WO 00/58479	10/05/00	PCT				
	B15	WO 00/56871	9/28/00	PCT				
	B16	WO 00/68266	11/16/00	PCT				
	B17	WO 00/69262	11/23/00	PCT				
	B18	WO 01/00663	1/4/01	PCT				
	B19	WO 01/00665	1/4/01	PCT				
	B20	WO 01/29563	4/26/01	PCT				
	B21	WO 01/31054	5/3/01	PCT				
	B22	WO 01/36600	5/25/01	PCT				
	B23	WO 01/38487	5/31/01	PCT				

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C1		Chyung et al. Novel β -Secretase Cleavage of β -Amyloid Precursor Protein in the Endoplasmic Reticulum/Intermediate Compartment of NT2N Cells, <i>Journal of Cell Biology</i> , 138: 671-680 (1997).

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INFORMATION DISCLOSURE STATEMENT		Applicant Gurney et al.	
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)		
C2	*	Evin et al., Alzheimer's disease amyloid precursor protein (A β PP): proteolytic processing, secretases and β A4 amyloid production, <i>Amyloid; Int. J. Exp. Clin. Invest.</i> , 1: 263-280 (1997).
C3	*	Haass et al., Amyloid β -peptide is Produced by Cultured Cells During Normal Metabolism, <i>Nature</i> , 359: 322-325 (1992).
C4	*	Haass et al., β -Amyloid Peptide and 3-kDa Fragment are Derived by Distinct Cellular Mechanisms, <i>Journal of Biochemistry</i> , 268: 3021-3024 (February 15, 1993).
C5	*	Haass et al., The Swedish Mutation Causes Early-Onset Alzheimer's Disease by β -Secretase Cleavage Within the Secretory Pathway, <i>Nature Medicine</i> , 12: 1291-1296 (1995).
C6	*	Hirosawa et al., Characterization of cDNA Clones Selected by the GeneMark Analysis from Size-Fractionated cDNA Libraries From Human Brain, <i>DNA Res.</i> , 6(5): 329-336 (1999).
C7	*	Hussain et al., Identification of a Novel Aspartic Protease (Asp 2) as β -Secretase, <i>Molecular and Cellular Neuroscience</i> , 14: 419-427 (1999).
C8	*	Kang et al., The Precursor of Alzheimer's Disease Amyloid A4 Protein Resembles a Cell-Surface Receptor, <i>Nature</i> , 325: 733-736 (1987).
C9	*	Kitaguchi et al., Novel Precursor of Alzheimer's Disease Amyloid Protein Shows Protease Inhibitory Activity, <i>Nature</i> , 331: 530-532 (1988).
C10	*	Knops et al., Cell-type and Amyloid Precursor Protein-type Specific Inhibition of A β Release by Bafilomycin A1, a Selective Inhibitor of Vacuolar ATPases, <i>Journal of Biological Chemistry</i> , 270: 2419-2422 (1995).
C11	*	Koo and Squazzo, Evidence that Production and Release of Amyloid β -Protein Involves the Endocytic Pathway, <i>Journal of Biological Chemistry</i> , 269: 17386-17389 (1994).
C12	*	Ponte et al., A New A4 Amyloid mRNA Contains a Domain Homologous to Serine Proteinase Inhibitors, <i>Nature</i> , 331: 525-527 (1988).
C13	*	Seubert et al. Secretion of β -amyloid Precursor Protein Cleaved at the Amino Terminus of the β -amyloid Peptide, <i>Nature</i> , 361: 260-263 (1993).
C14	*	Sinha et al., Purification and Cloning of Amyloid Precursor Protein β -Secretase from Human Brain, <i>Nature</i> , 402: 537-540 (1999).
C15	*	Szececi, The Aspartic Proteases, <i>Scand. J. Clin. Lab. Invest.</i> , 52 (suppl. 210): 5-22 (1992).
C16	*	Tanzi et al., Protease Inhibitor Domain Encoded by an Amyloid Protein Precursor mRNA Associated with Alzheimer's Disease, <i>Nature</i> , 331: 528-530 (1988).
C17	*	Vasser et al., β -secretase Cleavage of Alzheimer's Amyloid Precursor Protein by the Transmembrane Aspartic Protease BACE, <i>Science</i> , 286 (5440): 735-41 (1999).
C18	*	Yan et al., Membrane-anchored Aspartyl Protease with Alzheimer's Disease β -Secretase Activity, <i>Nature</i> , 402: 533-537 (1999).
C19	*	Zhao et al., β -Secretase Processing of the β -Amyloid Precursor Protein in Transgenic Mice Is Efficient in Neurons but Inefficient in Astrocytes, <i>Journal of Biological Chemistry</i> , 271: 31407-31411 (1996).
C20	*	PCT Search report for PCT/US 99/20881
C21	*	Mullan et al., A Pathogenic Mutation for Probable Alzheimer's Disease in the APP Gene at the N-Terminus of β -Amyloid, <i>Nature Genetics</i> 1: 345-347 (1992).
C22	*	Elan and Pharmacia form Alzheimer's disease research collaboration in the area of Beta-Secretase, News 08/09/2000, www.elancorp.com.

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